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USING GAME THEORY TO FORM A RECOMMENDATION MECHANISM FOR RESTAURANT SERVICES

Summary

Global digitalization and migration processes of the population necessitate the formation of services for the convenience and attractiveness of food establishments for consumers. These establishments are designed to address one of the most important human needs - providing quality food for individual needs. This issue is a critical one for Ukraine now, and it will become especially relevant during the post-war recovery. In this regard, the development of approaches to create recommendation mechanisms that will allow you to quickly find a restaurant via the Internet that meets the requirements and needs of the user for the dish, which, in turn, determines the relevance of the study.

The purpose of the article is to study the application of game theory in the development of a recommender mechanism for searching for restaurants on the Internet at the user's location in order to improve the level of satisfaction of the needs for quality food. In the course of the study, general scientific methods were used: analysis and synthesis - to conduct a theoretical study of the needs of users searching on the Internet, abstract-logical method - to create logical generalizations based on the results of the analysis of literature sources, methods and approaches of game theory - to substantiate the approach to creating a recommendation mechanism for restaurant services.

The article highlights the main features of the use of game theory in marketing to determine the needs of users and promote restaurant services, proposes an algorithm for implementing such an approach and its formal representation. Using the example of the implementation of the two-player strategy, the author shows how a recommendation mechanism can be implemented to satisfy the tastes of two or more consumers, provided that consumers choose restrictions from the context menu, the mechanism is presented through a matrix of recommendations on mixed strategies. A general methodology and a formalized algorithm for the formation of a recommendation mechanism for restaurant services that can be used in the development of restaurant websites and services for finding places to eat according to preferences are proposed. Implementation of theoretical substantiation of mechanisms for creating recommendations based on models of user behavior on the Internet. Formation of restaurant menu suggestions with the possibility of ordering a dish for a certain time of the user's arrival at the restaurant with reference to geolocation.

Keywords: digitalization, query, Game theory, Internet marketing, user preferences.
Number of sources: 12.

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